WHAT IS CLAIMED IS:

1. A gate driving circuit performing a gate driving control by supplying a bias voltage from a gate bias power source to a gate terminal of a power switching device via a gate wire, comprising:

a main current circuit wire that connects an emitter terminal of the power switching device to an external load; and

an electromotive force inducing coil section formed of a portion of the gate wire which is wound around a part of the main current circuit wire in an electrically insulated condition;

wherein one end of the electromotive force inducing coil section is connected to the gate terminal, while the other end thereof is connected to the gate bias power source via a gate driving current suppressing resistor, wherein the electromotive force inducing coil section induces an induction electromotive force based only on a main current of the power switching device flowing on the main current circuit wire.

2. The gate driving circuit as claimed in Claim 1, wherein the power switching device has a flywheel diode connected between a collector and an emitter, and a junction point of a cathode terminal side wire of the

flywheel diode and the main current circuit wire is positioned closer to the external load with respect to the winding position of the electromotive force inducing coil section.

3. The gate driving circuit as claimed in Claim 1, further comprising a gate bias reference wire that is connected between the gate bias power source and the main current circuit wire on the side of the emitter terminal for serving as a reference of the gate bias, wherein a junction point of the gate bias reference wire and the main current circuit wire is positioned closer to the side of the emitter terminal with respect to the winding position of the electromotive force inducing coil section.

4. A gate driving circuit in a power module mounted on a power switching device chip, comprising:

a gate pad to which a gate wire is connected for supplying a bias voltage from a gate bias power source to a gate terminal of the power switching device;

an emitter pad to which a main current circuit wire is connected for connecting an emitter terminal of the power switching device to an external load; and

an electromotive force inducing section formed of a portion of the gate wire which is wound around the emitter

pad in an electrically insulated condition;

wherein one end of the electromotive force inducing section is connected to the gate terminal, while the other end thereof is connected to the gate pad, and the electromotive force inducing section induces the induction electromotive force based only on a main current of the power switching device flowing on the main current circuit wire.

5. The gate driving circuit as claimed in Claim 4, wherein the power switching device has a flywheel diode connected between a collector and an emitter, and a junction point of a cathode terminal side wire of the flywheel diode and the main current circuit wire is positioned closer to the external load with respect to the position of the emitter pad.

6. The gate driving circuit as claimed in Claim 4, wherein the electromotive force inducing section has a coil section which is wound around a portion of the emitter pad in an electrically insulated condition.

7. The gate driving circuit as claimed in Claim 4, further comprising a gate bias reference wire that is connected between the gate bias power source and the main

current circuit wire on the side of the emitter terminal serving as a reference of the gate bias, wherein a junction point of the gate bias reference wire and the main current circuit wire is positioned closer to the side of the emitter terminal with respect to the position of the emitter pad that corresponds to the winding position of the gate wire forming the electromotive force inducing section.